

Studies in the News

California Research Bureau, California State Library

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FEATURED STUDIES

"The 2018 Nobel Memorial Prize in Economic Science was awarded on Monday to a pair of American economists, William D. Nordhaus and Paul M. Romer, for their work highlighting the importance of government policy in fostering sustainable economic growth. Mr. Nordhaus was honored for pioneering the assessment of the economic impact of climate change, including his advocacy for governments to tax carbon emissions. Mr. Romer was honored for his work on the role of policy in encouraging technological innovation." (New York Times, Oct. 8, 2018)

"The two picks are brought together by the emphasis on wealth, the true nature of wealth, and how nations and societies fare at the macro level. These are two highly relevant picks. Think of Romer as

having outlined the logic behind how ideas leverage productivity into ongoing spurts of growth, as for instance we have seen in Silicon Valley. Think of Nordhaus as explaining how economic growth interacts with the value of the environment." (*Marginal Revolution*, Oct. 8, 2018)

Human Capital and Growth: Theory and Evidence. By Paul Romer. NBER. Nov. 1989. 59 p. http://www.nber.org/papers/w3173

"This paper outlines a theoretical framework for thinking about the role of human capital in a model of endogenous growth. The framework pays particular attention to two questions: What are the theoretical differences between intangibles like education and experience on the one hand, and knowledge or science on the other? and How do knowledge and science actually affect production? One implication derived from this framework is that the initial level of a variable like literacy may be important for understanding subsequent growth. This emphasis on the level of an input contrasts with the usual emphasis from growth accounting on rates of change of inputs. The principal empirical finding is that literacy has no additional explanatory power in a cross-country regression of growth rates on investment and other variables, but consistent with the model, the initial level of literacy does help predict the subsequent rate of investment, and indirectly, the rate of growth."

Evolution of Assessments of the Economics of Global Warming: Changes in the DICE model, 1992 - 2017. By William D. Nordhaus. NBER. Apr. 2017. 22 p. http://www.nber.org/papers/w23319

"Many areas of the natural and social sciences involve complex systems that link together multiple sectors. Integrated assessment models (IAMs) are approaches that integrate knowledge from two or more domains into a single framework, and these are particularly important for climate change. One of the earliest IAMs for climate change was the DICE/RICE family of models.... The study finds that the major revisions have come primarily from the economic aspects of the model, whereas the environmental changes have been much smaller. Particularly sharp revisions have occurred for global output, damages, and the social cost of carbon. These results indicate that the economic projections are the least precise parts of IAMs and deserve much greater study than has been the case up to now, especially careful studies of long-run economic growth (to 2100 and beyond)."

CRIMINAL JUSTICE & LAW ENFORCEMENT

50-State Report on Public Safety. Council of State Governments Justice Center. 2018. https://50statespublicsafety.us/

"The 50-State Report on Public Safety is a web-based resource that combines data analyses with practical examples to help policymakers craft impactful strategies to address their state's specific public safety challenges. The Council of State Governments (CSG) Justice Center analyzed millions of data points, and with support from the Association of State Correctional Administrators, interviewed corrections staff in all 50 states to collect new data on each state's research capacity and supervision practices for use in this first-of-its-kind resource." The stated goals of the report are to reduce crime and strengthen communities, ending the cycle of reoffending, and to use cost-effective public safety investment practices. The website includes over 300 data visualizations for each state, as well as examples of public safety innovations.

EDUCATION

Black Students at Public Colleges and Universities: A 50-State Report Card. By Shaun Harper, et. al. University of Southern California, Race and Equity Center. Sep. 2018. 44 p. https://race.usc.edu/wp-content/uploads/2018/09/Black-Students-at-Public-Colleges-and-Universities-A-50-State-Report-Card-Harper-and-Simmons-1-9-25.pdf

"Black public-university students in two states with the highest percentage of African-American residents are among the most disadvantaged nationwide, according to a new report that grades both public universities and states on how well they attract and graduate black students.... Louisiana earned the lowest rating in the report, published on Tuesday by the University of Southern California, despite having the second-highest percentage of black residents. Mississippi, the state with the largest share of its population identifying as African-American, was ranked fourth-lowest on how inclusive its public universities are.... West Coast universities, whose states have smaller black populations, fared better by the report's metrics. Washington earned a 2.59, California a 2.46, and Oregon a 2.07. The highest-rated state in the analysis was Massachusetts, which earned a 2.81." (*Chronicle of Higher Education*, Sep. 25, 2018).

Have States Maintained High Expectations for Student Performance? An Analysis of 2017 Proficiency Standards. By Daniel Hamlin, et al. Education Next. Fall 2018. 8 p. https://www.educationnext.org/files/ednext_xviii_4_hamlin_peterson.pdf

Where do U.S. schools stand in terms of setting high proficiency standards and improving academic performance? This report states that, since the implementation of the Every Student Succeeds Act and the turn away from Common Core standards, there has not been a wholesale watering down of proficiency standards—or a lot of movement toward improving standards. There seems to be little effect, at this point, of standards on achievement. The researchers in this report state that "[w]e find no correlation at all between a lift in state standards and a rise in student performance, which is the central objective of higher proficiency bars. While higher proficiency standards may still serve to boost academic performance, our evidence suggests that day has not yet arrived."

EMPLOYMENT

Employment Benefits from California Climate Investments and Co-investments. By J. R. DeShazo, et al. UCLA Luskin Center for Innovation. Sep. 2018. 428 p. http://innovation.luskin.ucla.edu/CCIJobsStudy

"Our analysis reveals that,... [w]hen added together, appropriated funds and induced co-investment support a total of 75,600 jobs in California.... For every million dollars that the state appropriates in California Climate Investments, we estimate that on average 8.8 jobs will be supported by program funds, and an additional 24.9 jobs will be supported by induced co-investment.... To put these numbers in context, the residential construction industry, which is a common reference point for job creation, has a multiplier of 10.4 jobs per million dollars invested, assuming no additional jobs from co-investment.... Caution is advised when interpreting the social value of a relatively low employment multiplier for a California Climate Investment program. A program may have a low multiplier (e.g., support relatively few jobs per million dollars invested)" for reasons such as higher wage/generous benefit jobs, cost of materials is higher, or the cost of sourcing from out-of-state firms. "Program-level investment decisions should not be based solely on job numbers."

ENERGY & ENVIRONMENT

Guide to Compliance with California's Sustainable Groundwater Management Act. By Alletta Belin. Stanford Water in the West. Sep. 2018. 26 p.

https://stacks.stanford.edu/file/druid:kx058kk6484/Woods%20Groundwater%20Mgmt%20Act%20Report%20v06%20WEB.pdf

"Local agencies in critically overdrafted groundwater basins in California have less than a year and a half to draft their plans to achieve sustainable groundwater management. [They] ... will need to avoid six specified 'undesirable results' ranging from seawater intrusion and degraded water quality to land subsidence. A new report ... guides these agencies through how to understand and comply with the requirement that GSAs (Groundwater Sustainability Agencies) must not cause 'significant and unreasonable adverse impacts on beneficial uses of surface water.'... To help agencies navigate how to interpret (California's 2014 Sustainable Groundwater Management Act or SGMA), the report reviews state and federal laws, regulations and other resources that provide guidance on the issue." (Stanford Water in the West News, Sep. 20, 2018).

HEALTH

"Alcohol Use and Burden for 195 Countries and Territories, 1990-2016: a Systematic Analysis for the Global Burden of Disease Study 2016." By Global Burden of Disease 2016 Alcohol Collaborators. *The Lancet*, vol. 392 no. 10152 (Sep. 22, 2018) 21 p. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31310-2/fulltext

"Alcohol use is a leading risk factor for disease burden worldwide, accounting for nearly 10% of global deaths among populations aged 15-49 years, and poses dire ramifications for future population health in the absence of policy action today. The widely held view of the health benefits of alcohol needs revising, particularly as improved methods and analyses continue to show how much alcohol use contributes to global death and disability. Our results show that the safest level of drinking is none. This level is in conflict with most health guidelines, which espouse health benefits associated with consuming up to two drinks per day. Alcohol use contributes to health loss from many causes and exacts its toll across the lifespan, particularly among men. Policies that focus on reducing population-level consumption will be most effective in reducing the health loss from alcohol use."

HUMAN SERVICES

Fear and the Safety Net: Evidence from Secure Communities. By Marcella Alsan, et al. NBER. June 2018. 69 p.

http://www.nber.org/papers/w24731.pdf

"This paper explores the impact of fear on the incomplete take-up of safety net programs in the United States. We exploit changes in deportation fear due to the roll-out and intensity of Secure Communities (SC), an immigration enforcement program that empowers the federal government to check the immigration status of anyone arrested by local police, leading to the forcible removal of approximately 380,000 immigrants.... Though not at personal risk of deportation, Hispanic citizens may fear their participation could expose non-citizens in their network to immigration authorities. We find significant declines in SNAP and ACA enrollment, particularly among mixed-citizenship status households and in areas where deportation fear is highest."

SCIENCE & TECHNOLOGY

Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security. By Robert Chesney, et al. SSRN. 59 p.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3213954&wpisrc=nl_cybersecurity202&wpmm=1 (Free registration required)

This report offers policy recommendations to guard against the effects of deliberate online misinformation. "Deep-fake technology has characteristics that enable rapid and widespread diffusion, putting it into the hands of both sophisticated and unsophisticated actors.... The risks to our democracy and to national security are profound as well. Our aim is to provide the first in-depth assessment of the causes and consequences of this disruptive technological change, and to explore the existing and potential tools for responding to it. We survey a broad array of responses, including: the role of technological solutions; criminal penalties, civil liability, and regulatory action; military and covert-action responses; economic sanctions; and market developments."

TRANSPORTATON & INFRASTRUCTURE

Tall Building Safety Strategy. By Applied Technology Council, for the City and County of San Francisco. Oct. 2018. 36 p.

http://onesanfrancisco.org/sites/default/files/inline-files/Tall%20Buildings%20Safety%20Strategy%20-%20CEC%20-%2010.02.18 forDIGITAL.pdf

Commissioned by the City of San Francisco in 2017, this study of buildings over 240 feet in San Francisco has raised concerns about inadequate inspections of certain types of steel framed buildings after the 1989 Loma Prieta earthquake. At the time of the earthquake, it was not yet understood that "steel moment frames" are particularly susceptible to fracture. In addition to a re-inspection of all such steel framed buildings, the report makes 15 other recommendations in order to reduce seismic risk.

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